

JPRS 84006

29 July 1983

USSR Report

CONSTRUCTION AND RELATED INDUSTRIES

No. 94



FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service (NTIS), Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semimonthly by the NTIS, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

Soviet books and journal articles displaying a copyright notice are reproduced and sold by NTIS with permission of the copyright agency of the Soviet Union. Permission for further reproduction must be obtained from copyright owner.

29 July 1983

USSR REPORT
CONSTRUCTION AND RELATED INDUSTRIES

No. 94

CONTENTS

CONSTRUCTION PLANNING AND ECONOMICS

- Gosstroy Official Reviews Technical Developments
(A.I. Martem'yanov; STROITEL'NAYA MEKHANIKA I RASCHET
SOORUZHENIY, No 2, Apr 83) 1
- Latvian Party Secretary Reviews Construction in Republic
(E. Aushkap; KOMMUNIST SOVETSKOY LATVII, No 3, Mar 83) 10
- Republic Construction Shortfalls Detailed
(K. Alyukov; SOVETSKAYA KIRGIZIYA, 1 Apr 83) 22

AGRICULTURAL CONSTRUCTION

- Lag in Rural Construction, Waste of Materials Revealed
(STROITEL'NAYA GAZETA, 30 Mar 83; 17 Apr 83) 25
- Updating of Housing Construction System
by M. Martynov
Shortcomings in Rural Construction Aired

BUILDING MATERIALS

- Materials Conservation Measures Described
(A. Belyayev; VESTNIK STATISTIKI, No 3, Mar 83) 32

CONSTRUCTION PLANNING AND ECONOMICS

GOSSTROY OFFICIAL REVIEWS TECHNICAL DEVELOPMENTS

Moscow STROITEL'NAYA MEKHANIKA I RASCHET SOORUZHENIY in Russian No 2, Apr 83
pp 1-5

/Article by A.I. Martem'yanov, department head at Glavstroynauki of USSR Gosstroy: "The Construction Science -- For the 60th Anniversary of the USSR" /

/Text / The extensively deployed all-union socialist competition for collectives of scientific-research organizations of the USSR Gosstroy system, in commemoration of the 60th anniversary of the USSR, took place under the badge of further raising the efficiency and quality of work and successful fulfillment of the national economic plans during 1982.

The initiative displayed by scientific-research organizations in furnishing above-plan technical assistance in the planning and construction of agricultural installations and also in the carrying out of additional studies aimed at raising the efficiency of construction played a substantial role in the achievement of high operational indicators. Such initiative was displayed by the collectives of the Order of the Red Banner of Labor NIIZhB /Scientific Research Institute of Concrete and Reinforced Concrete / the Order of the Red Banner of Labor NIIOSP /Scientific Research Institute of Foundations and Underground Structures / imeni N.M. Gersevanov, NIISK /Scientific Research Institute of Structural Parts / and TsNIISK /Central Scientific Research Institute of Structural Parts / imeni Kucherenko.

This valuable initiative displayed by the scientific-research organizations constitutes a fine response by the construction science to the decision handed down during the May (1982) Plenum of the CPSU Central Committee with regard to implementing the USSR food program.

During 1982, many scientific-research organizations of USSR Gosstroy and the union republic gosstroy's joined in the all-union socialist competition honoring the 60th anniversary of the USSR and they achieved high indicators in creating and introducing new and more effective equipment and in lowering labor expenditures, materials-intensiveness including metal-intensiveness and, it follows, the production costs for output. In the process, they also achieved high indicators in carrying out the planned tasks and socialist obligations for last year.

The greatest successes in carrying out the tasks of scientific-technical programs were achieved by the Order of the Red Banner of Labor Scientific-Research Institute of Concrete and Reinforced Concrete of USSR Gosstroy, which along with 25 scientific-research institutes of other branches of the national economy was awarded the Red Banner of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Komsomol Central Committee. The institute introduced the following developments in 1982:

...the production of structures made from cellular concrete, including large-size structures for industrial, civil and rural production construction, for operating conditions at high temperatures (up to 1300°C). The volume of their use amounted to more than 2 million square meters and this produced an economic savings on the order of 50 million rubles, a fuel savings in the amount of 7,900 conventional tons and a reduction in labor expenditures in construction of more than 1,000 man-years;

...the use, based upon waste products of industrial production, of large-size elements made from heat resistant concrete, including especially light (volumetric mass 300-600 kilograms per cubic meter) concrete. The volume of use amounted to more than 30,000 cubic meters, which made it possible to save 30,000 tons of refractory, 1,200 tons of steel and 3,800 conventional tons of fuel and to achieve an economic savings in the amount of more than 2.5 million rubles and a savings in labor expenditures of 190 man-years;

...the introduction of the C-3 super-softening agent in the preparation of 600,000 cubic meters of concrete, which produced a savings of 3 million rubles (5 rubles per cubic meter) and also plasticizing additives which accelerate the hardening of the concrete. The use of additives made it possible to raise the strength of concrete by 20-25 percent and to reduce the amount of time required for its thermal treatment by 30 percent. For a volume of use of additives for 2 million cubic meters of concrete, the economic savings amounted to 4.3 million rubles;

...the use of slabs for a "KZhS" or "P" type span measuring 3 X 18 meters and 3 X 24 meters in a volume on the order of 200,000 square meters; this made it possible to save 1,300 tons of steel and to reduce labor expenditures by 23.1 man-years.

New fracture and chemical resistant paint and varnish coatings were developed at NIIZhB and their industrial production organized. The use of chemically fracture-resistant paint and varnish coatings for protecting reinforced concrete structures in aggressive mediums makes it possible to raise their service life by a factor of 4-5, increase the inter-repair intervals by threefold and to lower the labor intensiveness of repair operations to one-fifth. In 1982, these coatings were introduced into use at more than 50 installations.

Based upon the operational results for 1982, the following collectives of scientific-research organizations which fulfilled the conditions of the all-union socialist competition were considered to be the best by the Board of USSR Gosstroy and the Presidium of the Central Committee of the Professional Trade Union for Workers in Construction and the Construction Materials Industry:

the Scientific Research Institute of Construction Structures of USSR Gosstroy (Kiev); the Lithuanian Scientific Research Institute of Construction and Architecture of Gosstroy for the Lithuanian SSR; the All-Union Scientific-Research Institute of Water Supply, Sewerage, Hydraulic Engineering Installations and Engineering Hydrogeology of USSR Gosstroy; the Scientific-Research Institute of Automated Systems for Planning and Administration in Construction of Gosstroy for the Ukrainian SSR. These institutes were awarded red banners and monetary bonuses.

The more interesting operational results completed and carried out in 1982 are furnished below.

The Scientific Research Institute of Construction Structures of USSR Gosstroy (Kiev) developed design solutions for housing and public buildings, for various design systems ranging in height up to nine stories on sagging ground, using a complex of protective measures. These design solutions were introduced into operations by Mintyazhstroy /Ministry of Heavy Construction/ for the Ukrainian SSR, Minpromstroy /Ministry of Industrial Construction/ for the Ukrainian SSR, Mintyazhstroy /Ministry of Construction of Heavy Industry Enterprises/ for the Kazakh SSR, Minstroy /Ministry of Construction/ for the Moldavian SSR and others. The overall volume of construction of apartment buildings and civil buildings, carried out over a period of 10 months under complicated engineering-geological conditions, amounted to 500,000 square meters and the economic savings -- 5.7 million rubles;

...a method for the packing of loess sagging soils with a capability of up to 30 meters, by means of preliminary moistening and involving the use of the explosive energy of deep charges, was employed by organizations of USSR Minpromstroy /Ministry of Industrial Construction/, Minpromstroy for the USSR, Mintyazhstroy for the Kazakh SSR, Minvudkhov /Ministry of Land Reclamation and Water Resources/ for the Kazakh SSR, Mirmeliiovodkhov /Ministry of Land Reclamation and Water Resources/ for the Moldavian SSR, for the construction of a number of industrial, civil and agricultural installations representing an overall volume of 1.275 million cubic meters of packed soil. This made it possible to realize an economic savings in the amount of 2.95 million rubles;

...design solutions and a technology were developed for the production of rapid-construction prefabricated-collapsible industrial buildings made from unitized block sections. These were introduced into operations by organizations of Minneftegazstroy /Ministry of Construction of Petroleum and Gas Industry Enterprises/ for the USSR, Minvudkhov /Ministry of Land Reclamation and Water Resources/ for the USSR and Mintyazhstroy /Ministry of Construction of Heavy Industry Enterprises/ for the USSR, in connection with the construction of installations in remote and difficult to reach regions of the country, including in the zone of construction for the Urengoy-Pomary-Uzhgorod export gas pipeline. The savings realized from this over a period of 10 months amounted to more than 4 million rubles;

...in conformity with enterprises of the textile industry and jointly with GPI-5, technical solutions were developed for new types of multiple-story production buildings having a network of 18 X 6 meter columns (including with technical levels), with use being made in the ceilings, in addition to the 18 meter boxlike flooring, of new flooring of an open type, produced on the

same technological lines using similar type rigging and equipment. The economic savings to be realized from the introduction of these technological solutions will amount to approximately 1.4 million rubles;

...design solutions have been developed for multiple-story buildings of galvanic production efforts and enterprises of precision machine building, in which a solution has been found for the task of creating structures for a framework having a network of 12 X 6 meter columns for construction in regions having a seismicity of up to 7 balls (KP-205 series);

...a basic system has been developed for a new instrument for detecting flaws and determining the strength of concrete, involving the use of amplitude and frequency parameters in addition to the usual parameter for the speed of passage of ultrasonic fluctuations in concrete. The use of this instrument will make it possible to raise the reliability of test results and to automate the measurement process.

The Lithuanian Scientific Research Institute of Construction and Architecture of Gosstroy for the Lithuanian SSR has developed a new technology for processing phosphogypsum into a gypsum astringent, one which surpasses the technologies of foreign firms. A department is being planned (with a capability of 60,000 tons annually) for the processing of phosphogypsum at the Kedaynyay Chemical Plant (Lithuanian SSR), the construction of which will commence in 1983; heated limestone-lightweight aggregate concrete sawdust-latex and ceramic hollow floors have been developed for animal husbandry buildings in place of concrete and wooden floors. Compared to floors made out of lightweight aggregate concrete, sawdust-concrete floors containing a polymer additive have a water absorption of less than 17 percent and heat assimilation -- less than 32 percent. The floors differ in terms of a lower volumetric mass and reduced watertightness and they make it possible to improve the livestock maintenance conditions, to make more efficient use of the feed and to raise the weight increases of the animals. With the introduction into operations of 618,000 square meters, the economic savings amounted to 2.5 million rubles, savings in labor expenditures -- 3,400 man-days and in cement -- 2,400 tons.

More improved enclosing structures are being introduced for vegetable storehouses in the form of triple-layer slabs with heaters made out of burlap-perlite or mineral batting instead of brickwork;

...industrial farmsteads have been developed having comfortable engineering equipment which have been mastered and already produced in the amount of 1,100 by the Alitus EDSK. Compared to homes made out of lightweight aggregate concrete, they differ in that they are considerably less materials-intensive (for example, metal by a factor of 3.6, cement by a factor of 3.9 and with cost less by a factor of 1.14); plans are being introduced for efficient shipments of reinforced concrete structures and local construction materials.

The All-Union Scientific Research Institute of Water Supply, Sewerage, Hydraulic Engineering Installations and Engineering Hydrogeology of USSR Gosstroy has developed and partially introduced a new method for treating the fermented deposit of waste waters. A lowering of expenditures for chemical

agents and a reduction in the areas required for silt deposits will produce an economic savings in excess of 1 million rubles;

...a technological process has been developed for purifying drainage and quarry waters in the zone of the Kansk-Achinsk Power Engineering Complex, for the purpose of technical water supply usage. The anticipated economic savings -- 1.2 million rubles as a result of eliminating the construction of water intake installations;

...a new type of cooling tower has been developed having a mobile pseudo-descent spherical headpiece which makes it possible to achieve higher technological parameters for the cooling towers, thus improving their cooling capability considerably. The specific economic savings (for 100 cooling towers) will be 338,000 rubles and for the modernization of old ones and the construction of new cooling towers the economic savings will be approximately 6-8 million rubles;

...for the very first time in domestic and foreign practice, a closed system for production water supply and water removal has been created and is operating successfully at the Zaporozhye Motor Vehicle Plant. This system makes it possible to eliminate the discharging of impure waste water into the Dnepr River and it reduces considerably the consumption of clean water. According to preliminary estimates, the economic savings will amount to more than 4.3 million rubles, as a result of a reduction of 85 percent in the consumption of clean water and the utilization of valuable products (paints, oils and so forth);

...open-hearth slag has been employed as construction material in the erection of sludge storehouses. The use of this method at sludge storehouses of the Zaporozhstal' Plant, the Zhdanov Plant imeni Il'ich and a group of mines in the western Donets Basin is producing an economic savings of 360,000 rubles annually;

...a filter structure having a foam-polyurethane charge has been developed and introduced at Lipetsk and Leningrad which makes it possible to intensify by a factor of 2.1 the process of purifying oil-containing waste waters, with repeated use being made of the filtering material. The annual economic savings is 300,000 rubles and the savings in electric power -- 10,000 kilowatt hours;

...recommendations have been developed and introduced for protecting the industrial sites of the Volzhsk Pipe Plant from flooding caused by surface water. The economic savings to be realized at these installations is 200,000 rubles annually and the savings in labor expenditures -- 8 man-years;

...a technology has been developed and introduced at three installations for preparing drinking water from distilled water. The economic savings amounted to 300,000 rubles, with the savings being achieved through the use of cheap natural materials and the waste products obtained from distilling units.

The Scientific Research Institute of Automated Systems for Planning and Administration in Construction of Gosstroy for the UkSSR has developed an automated working position for a planner-builder (ARM-S), based upon the use of

a miniature electronic computer. It is to be used for automating the production of planning and scheduling documentation and for implementing a work regime for a planner within the systems for automated planning; this will ensure the simultaneous operation of 10 planners at the terminals. The first phase of a basic program for ensuring machine scheduling for the ARM-S has also been created; it contains a set of basic procedures for the automated production of construction drawings. Compared to the existing methods for machine scheduling, this makes it possible to increase the productivity of the scheduling work by a factor of 1.5 and to achieve the same indicators as the best foreign analogs;

...a technology has been developed for the automated planning of construction installations which involves the utilization of computer equipment of collective use. It appears as a system of documents for controlling the process of automatic planning by periods, executive agents and operations. All of this makes it possible to reduce the periods for planning installations to two-thirds-one half [of previous levels] and to realize an economic savings in the amount of 10 percent of the savings realized from the introduction of automatic planning systems;

...in the interest of developing sound and balanced plans for construction-installation work, planning solutions have been created for automating the formation of rating plates for construction organizations which ensure improvements in the validity of plans and their intensity through the disclosure of production reserves;

...standard programming support has been introduced for automating the planning for structures and engineering equipment for projects of civil, industrial and agricultural construction using an EVM [electronic computer], the use of which at 112 planning and other organizations made it possible to realize an economic savings of approximately 13 million rubles and to achieve an economy in steel of approximately 7,800 tons and in cement -- 19,500 tons;

...planning solutions have been introduced for automating production planning (annual, quarterly and operational), accounting and control and complete deliveries of precast reinforced concrete products, for projects of the annual program for construction-installation work of a territorial construction association (republic ministry, main administration, combine), the use of which at Minpromstroy for the UkSSR, Glavzapstroy for USSR Minstroy and Glavkiyevgorstroy made it possible to realize an economic savings of more than 2 million rubles and an economy in labor expenditures of 600 man-years.

...planning solutions have been implemented for DSK-8 [House-Building Combine] for automating production operational planning and administration and deliveries of precast reinforced concrete, completion products and construction materials for projects of large-panel housing construction, which made it possible to achieve an increase in the production capabilities for these projects of 6-9 percent, reduce the losses in working time by 9-12 percent and lower the duration of construction work on projects by 9-11 percent. The economic savings amounted to more than 1 million rubles and the savings in labor expenditures -- 270 man-years;

...standard program means have been developed for maintaining a data base and for developing applied program support for an ASU [automatic control system]

in construction which will make it possible to reduce to one-third the labor intensiveness involved in maintaining a data base for automated systems and to raise the labor productivity of program operators by a factor of 2.2-5 when developing applied program support for an ASU. The economic savings realized from the use of programming means at 11 organizations amounted to 1.3 million rubles and the savings in labor expenditures -- 250 man-years.

In accordance with a decree of the Board of USSR Gosstroy and the Presidium of the Central Committee of the Professional Trade Union for Workers in Construction and the Construction Materials Industry, five collectives of scientific-research institutes were awarded secondary monetary bonuses. These institutes carried out completely the plans and obligations planned for 1982 and they achieved considerable successes in the preparation and implementation of scientific works.

The Latvian Scientific-Research and Experimental-Technological Institute of Construction of Gosstroy for the Latvian SSR:

...created a low-power-intensive technology and technological equipment for the production of semi-water technical gypsum out of 4th grade gypsum stone that is unsuitable for obtaining gypsum using the conventional technology, it installed a technological line and it produced an experimental batch of astringent;

...it developed new types of shaped fastening and holding parts, dies and the technology for producing them. The reduction achieved in metal intensiveness amounted to 20-40 percent and the reduction in production labor intensiveness to half. Experimental batches of parts were produced and their mass production was started at plants of Minstroy /Ministry of Construction/ and Minstroymaterialy /Ministry of Construction Materials/ for the Latvian SSR.

The Scientific Research Institute of Construction Physics of USSR Gosstroy completed the optimization of its thermal-insulation indicators for new types of enclosing structures made out of light concretes of raised strength and lowered volumetric mass;

...created a new method for computing and planning combined lighting for buildings based upon minimization of power expenditures in the construction and operation of installations; this will provide a reduction of 10 percent in expenditures for the lighting systems. For an anticipated volume of 5.5 million square meters of lighting space, the savings in power will amount to 12,000 tons of standard fuel annually. The introduction of new methods of solar protection based upon light-regulating units in production buildings will result in a reduction in annual expenditures in the amount of 10 rubles per square meter of workable building space and an increase of 3-5 percent in labor productivity for precision visual operations;

...introduced methods for testing enclosing structures for complexes of distant space radio communications.

The Order of the Red Banner of Labor Scientific Research Institute for Foundations and Underground Installations imeni N.M. Gersevanov of USSR Gosstroy:

...developed efficient structures for foundations and methods for preparing basements for buildings and installations for regions subject to sinkhole-undermining processes. The use of these works makes it possible, per square meter of space, to lower to 10/27 [of the previous level] the indicators for production cost and labor intensiveness of operations;

...created efficient slightly-buried and non-buried foundations for agricultural buildings on heaving soils. Distinct from the traditional types which are placed lower than the freezing depth of the soil, such foundations make it possible to avoid a perennial accumulation of deformations caused by frost heaving under light buildings. The use of such foundations makes it possible, per square meter of building area, to lower production costs, the labor-intensiveness of operations and expenditures for materials for materials to two-fifths-one third [of the previous level].

...introduced progressive structures for pile-supported foundations which made it possible, for one standard piling, to lower the production costs for work by 89 rubles, labor expenditures by 2.3 man-days and material expenditures by 30 percent. For the introduction of a volume of 27,000 cubic meters of foundation space, the economic savings amounted to 6 million rubles. Cement expenditures decreased by 16,800 tons, metal -- by 8,300 tons and labor expenditures -- by 450 man-days.

The Order of the Red Banner of Labor Central Scientific-Research Institute of Construction Structures imeni Kucherenko of USSR Gosstroy introduced a new chapter to SNiP Construction Norms and Regulations/ II-7-81 entitled "Construction in Seismic Regions" for the planning of earthquake-proof structures. During its preparation, consideration was given to the results obtained from an analysis of the consequences of strong earthquakes experienced in recent years and also the experience accumulated in planning earthquake-proof buildings and installations during the past decade. In this chapter of the SNiP, a new indication of seismic danger was included for the very first time -- the probability (frequency) of recurring earthquakes of a computed intensity. Differentiated spectral curves for a graph on the coefficient of dynamic conditions for various soil conditions were included in the norms for the very first time. A radical change was carried out in the classification of soils according to the degree of seismic danger. Based upon earthquakes which occurred during the past few years, the anti-seismic requirements for large-panel buildings were lowered and the requirements for transverse reinforcement of reinforced concrete structures raised. The annual economic savings realized from the introduction of the new norms into planning and construction (Chapter SNiP II-7-81) is estimated to be on the order of 10 million rubles;

...completed Chapter SNiP II-22-81 entitled "Stone and Reinforced Stone Structures, Planning Norms." It has been supplemented by instructions for computations and design and it includes a requirement governing the use of efficient types of walls made out of hollow ceramic and concrete stones, light masonry with efficient heaters, panels and large-scale units made out of brick, stone and also natural local stone materials. In the new chapter the computed resistance of masonry with vibration on a vibration table is raised by 15 percent and high quality masonry made out of large-scale units -- by 20 percent. The anticipated annual economic savings amounts to more than 17 million rubles and the reduction in brick expenditures -- approximately 300 million units;

...extrusion plates 180 mm in height were produced for subsequent reinforcing with steel rods 8-12 mm in diameter. The reinforcement of the plates raises their supporting capability by 40 percent and this makes it possible to increase an overlapped span by twofold. In the process, a savings is achieved of 2 rubles per square meters and 4-6 kilograms of steel and the reliability of the structure is raised. The construction of large industrial installations has commenced in which the coverings, walls and partitions are to be made out of extrusion structures. For example, this includes a plant in Rovno which has a production area of 28,000 square meters;

...furnished technical assistance in expanding the production of wood-shavings panels of the P-3 type for covering floors, which possess raised physical-mechanical indicators. The economic savings realized from the installation of floors in 1982 will exceed 9 million rubles and the savings in labor expenditures will amount to approximately 4,000 man-years.

The Central Scientific-Research and Planning-Experimental Institute of Organization, Mechanization and Technical Assistance for Construction of USSR Gosstroy ensured the introduction of a unit method for the planning, preparation, organization and administration of construction of complicated installations and large-scale industrial complexes;

...introduced new types of specialized motor transport equipment -- self-loading transport means for delivering construction materials in containers and on pallets. It employed new structures for containers and packaging means having standardized units and parts and with specific materials-intensiveness lowered by 10-11 percent;

...it ensured the erection of structures and installations made out of cast-in-situ concrete involving the use of progressive types of cement forms. Extensive use was made for the very first time of non-adjustable cement forms with special properties; this made it possible to eliminate the laborious work of waterproofing and the finishing off of monolithic structures and the use of heated forms with new and efficient heaters and automatic control systems ensured an increase in the quality of the heating and lowered sharply the consumption of electric power;

...developed a new chapter for SNiP entitled "Geodetic Work in Construction," containing the normative requirements for further raising accuracy in the erection of buildings and installations, the effectiveness of geodetic support and the quality of construction.

The further development of the socialist competition among the scientific-research organizations of the USSR Gosstroy system and a study of the operational experience of leading collectives will promote the fulfillment and over-fulfillment of the plans and obligations undertaken for 1983 by the collectives of the scientific-research institutes.

COPYRIGHT: Stroyizdat, 1983

7026

CSO: 1821/111

CONSTRUCTION PLANNING AND ECONOMICS

LATVIAN PARTY SECRETARY REVIEWS CONSTRUCTION IN REPUBLIC

Riga KOMMUNIST SOVETSKOY LATVII in Russian No 3, Mar 83 pp 19-29

[Article by E. Aushkap, secretary of the Latvian Communist Party Central Committee: "One of the Central National Economic Tasks is that of Putting Capital Construction in Order"]

[Text] Decisions coming out of the 26th CPSU Congress and materials from the November 1982 Plenum of the CPSU Central Committee attach extremely great importance to capital construction matters. Our success in building up the nation's economic capability depends to a crucial degree upon the state of affairs in this industry.

Numerous complaints have been made against the Latvian construction workers in recent years, and they have frequently been subjected to deserved criticism for deficiencies in their work. It should be pointed out that many of the collectives in this industry and many of the party leaders and managers have derived the proper conclusions from this criticism. And it should be noted that today many of the republic's construction organizations and all the participants in the complex construction system have been working somewhat better than in previous years. Ministries and departments, city and rayon party committees and the executive committees of the soviets of people's deputies have performed a great deal of work to enhance effectiveness in capital construction and to concentrate workers and material resources at the projects scheduled for completion. This has already produced some good results. Last year, for example, 1.43 billion rubles worth of fixed capital was placed into use in the republic, which is 65 million rubles, or 5%, more than was completed in the first year of the five-year period. Furthermore, the increase in fixed capital completions was achieved with some lowering of the ceilings for capital investments.

The following were released for use as specified in the commitments: capacities for the production of capron thread at the Khimvolokno Production Association in Daugavpils, capacities for the production of lactose at the cheese plant in Preyli, the second section of the container shipping facility of the merchant marine port, an overpass over Robezh Street in Riga, and a number of other projects.

The republic's construction workers are trying to make their best possible contribution to the realization of the nation's Food Program. They accepted decisions coming out of the May 1982 Plenum of the CPSU Central Committee as their program

of aggressive action. Plans for construction and installation work, for the application of capital investments and the start-up of fixed capital were fulfilled last year for the agricultural system. Capacities for the production of 2 million broilers were started up at the Kekava Poultry Farm, and hog complexes were placed into operation at the Tsiurma Sovkhoz in Ludzenskiy Rayon and the Kron'autse Sovkhoz in Dobel'skiy Rayon. New capacities began operating at the Riga Balanced Feed Plant and the Dobeles Baked Goods Combine. A large number of feed production facilities were built. The total area of fish ponds was increased by 643 hectares on the Nagli Sovkhoz in Rezeknenskiy Rayon. The assignment for construction of livestock facilities for cattle, hogs and poultry was successfully fulfilled.

The situation with respect to construction on the economically weak farms has begun to be corrected. The republic's Ministry of Agriculture and the main contract organizations achieved start-up for the planned capacities last year. A total of 5,700 square meters of housing was released for occupancy and approximately 50 million rubles worth of construction and installation work was performed over and above the plan.

The construction of facilities for the republic's social infrastructure was accelerated considerably. A total of 1.062 million square meters of housing, including 300,000 in the rural areas, was readied for occupancy last year with state capital investments, cooperative and kolkhoz funds and funds of the population. This was 16,000 square meters over the amount specified in the plan. By 1 September, as promised in the commitments, new schools with a combined capacity of 5,000 pupils were opened, and almost 5,000 small children were given the opportunity to attend new kindergartens and nurseries.

Our main contract organizations, primarily those of the Latvian SSR Construction Ministry and Latvkolkhozstroy, worked more efficiently last year. I would like to mention the collectives which were awarded the Challenge Red Banners of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Komsomol Central Committee for their good performance in the All-Union Socialist Competition in Honor of the 60th Anniversary of the Founding of the USSR: the Latelektrostroy Trust (Ya. Brakovskiy, manager; E. Bekeres, secretary of the party organization) and the Daugavpils Interkolkhoz Construction Organization (L. Kapelyushnikov, chairman; B. Ivanov, secretary of the party organization).

The collectives of the Stroymekhanizatsiya Trust, the Baltmorgidrostroy Trust, the Mostostroy-5 Trust, in Riga, the Daugavpils General Construction Organization and the Rezekne Interkolkhoz Construction Organization, which were the winners in the branch socialist competition, also completed 1982 with good indices.

It is especially important to mention the increased activeness of a number of city and rayon party committees and ispolkoms of soviets of people's deputies in the resolution of matters pertaining to the supervision of capital construction and the enhancement of organizational work in this area. This applies primarily to the Riga, Daugavpils, Rezekne and Lielvaye city committees, the Daugavpilskiy, Rzhizskiy, Lielvayskiy, Ekabpilsskiy, Valmieriski and Tsesisski party raykoms and the ispolkoms of the soviets of people's deputies for those cities and rayons.

They systematically discuss the situation in capital construction, adopt effective decisions and provide concrete assistance with the resolution of important matters--matters of material and technical support, for example.

There is something to be learned in this respect from the performance of the Ludzenskiy party raykom. There were significant shortcomings in the organization of construction in the rayon in 1981, the fulfillment of plan assignments for the completion of housing and production facilities was not fulfilled, a large hog complex with a capacity of 12,000 hogs on the Tsirma Sovkhoz and a dairy farm on the Liyesma Kolkhoz was not completed, and planned assignments for construction on the economically weak farms were not fulfilled.

The Central Committee of the Latvian Communist Party made serious complaints against the Ludzenskiy party raykom in December of 1981. The raykom derived the proper conclusions from this criticism. Within a short period of time a great deal of work had been performed in the rayon to strengthen the construction organizations by providing them with management personnel. The activeness of primary party organizations increased, the organization of socialist competition was improved, and greater demands were made of the engineers and technicians with respect to the state of affairs at the construction sites. The steps which were taken produced the desired effect. Practically all of the start-ups planned for the rayon in 1982 were accomplished.

As we point out the advances we have made, we must also mention the fact that there are still also numerous unresolved problems in the area of capital construction.

In his speech at the November 1982 Plenum of the CPSU Central Committee, Yu. V. Andropov, general secretary of the CPSU Central Committee, made the following statement:

"We are channeling enormous amounts of funds into economic development, the creation of new capacities, housing, cultural and personal service construction. It is extremely important to make efficient use of these funds. We still have numerous problems, however. We must make a more determined effort to eliminate the scattering of workers and means among a large number of projects.... We are also dissatisfied in many ways with the organization of the construction process itself. Year after year deficiencies in this area result in failure to fulfill start-up plans for capacities.... The quality of the construction and installation work is still poor in many cases. The construction organizations lack adequate mobility.

"Numerous decisions have been adopted for purposes of correcting these deficiencies. The decisions should be implemented. Putting capital construction in order is one of the central national economic tasks."

We have to admit that all of the deficiencies pointed out at the November plenum also exist in the organization of capital construction in our republic. This is forcing us to take steps to further enhance effectiveness in capital construction. We know that this problem is a multifaceted and complex problem, that its successful resolution depends not only upon the construction workers, but also upon all the other participants in the construction process, including planning organizations, industrial enterprises, clients, transport and supply organizations.

It is the absence of the necessary interaction between the general contractors and the subcontracting organizations, between the builders and the clients, and

the party resolution of matters pertaining to material and technical supply, as well as internal shortcomings in the organization of labor and production, which have been the main cause of failure to fulfill a number of important parts of the assignment in many collectives.

Total start-ups of fixed capital fell below the level specified in the plan by 14 million rubles last year.

The republic's Ministry of Construction failed to fulfill planned assignments for commercial construction output and for volume of construction and installation work. Fixed capital at the Valmiyera Meat Combine was not placed into operation as planned. This is not the first year in which the target date for completion of a laboratory building at the Inorganic Chemistry Institute in Salaspils has not been met. The Rigapromstroy Trust (Yu. Tikhomirov, manager) did not complete the modernization of the Riga Frame-and-Panel Housing Construction Plant, as a result of which the Ministry of Construction received almost 2 million rubles worth of fixed capital less than planned.

The collectives of the Tsesisskiy Trust and the Yurmalastroy, Rigastroy and Latspetsstroy Trusts (managers: Ya. Kherbsts, S. Lebedev, V. Nazarets and R. Olengovich) performed considerably below their capabilities last year.

The republic's Latvkolkhozstroy Association continues to have a number of serious deficiencies in its operation. For the second year in a row it has failed to fulfill plans for the construction of facilities for cattle and hogs. The construction of depots for mineral fertilizers and vegetable storage facilities is proceeding slowly.

The managers of a number of interkolkhoz construction organizations with lower output last year than in 1981 (there are nine such organizations in the association) deserve to be seriously criticized. This applies, first of all, to the Ventspils Interkolkhoz Construction Organization, which fulfilled only 62% of its plan for last year. The rayon party committee is also to blame. Among other things, it permitted that construction organization to operate for a lengthy period of time without a director. The collectives of the Gulbena, Madona and Sigulda Interkolkhoz Construction Organizations also performed poorly. The Latvkolkhozstroy Administration must study most seriously the causes of the poor performance by these organizations and take the steps necessary to see that the situation is significantly rectified within the near future. Nor do the party raykoms have the right to stand on the sidelines with respect to the accomplishment of this task.

The collective of the Daugavagesstroy Administration (Yu. Musikhin, chief; V. Vakula, secretary of the party organization) also completed last year with extremely low production indices. The administration failed to fulfill 3 million rubles worth of work out of the 11.1 million called for by the plan. The Daugavagesstroy Administration actually failed to fulfill assignments for rural construction, including construction on the economically weak farms. We cannot accept this situation. It might be useful to point out the fact that the Central Committee of the Latvian Communist Party and the republic's Council of Ministers have charged management leaders with personal responsibility for assuring

the prompt and complete implementation of the official program for accelerating the development of the republic's economically weak kolkhozes and sovkhoses.

Special mention should be made of a matter of enormous social importance--housing construction. The 23rd Congress of the Latvian Communist Party stressed the need for absolute fulfillment of the plan for housing completions. The work in this area should be regarded as an important party assignment. Many leading individuals in the ministries and departments and many leaders of city and rayon party committees have taken precisely this approach to the matter. The main departments engaged in housing construction--the Ministry of Construction, the Latvkolkhozstroy Administration and the Ministry of Agricultural Construction, which account for 87% of the program for housing construction completions, exceeded their planned assignments. In general, however, the performance in housing construction could have been considerably better, had all the ministries and departments and the managers of a number of enterprises engaged in construction on a self-supporting basis regarded this matter with greater seriousness. Unfortunately, the republic's Ministry of Light Industry and Ministry of the Construction Materials Industry failed to assure that all of the planned housing was completed for occupancy. The Furniyers Plant, the Special Design Bureau for the Adoption of Chemical Methods and the Paint and Varnish Plant did not complete their apartment buildings. A result of this attitude toward the work was the fact that housing construction in Riga fell short of the plan by 8,000 square meters.

A similar situation developed last year in the construction of preschool facilities. We were short by 620 places in preschool facilities because kindergartens were not completed in Varaklyany by subdivisions of the Ministry of Land Reclamation and Water Resources, by the Locomotive Repair Plant in Daugavpils and by the Ministry of Agriculture on the Sigulda Scientific Experimental Farm.

Work continues to be hindered by the fact that the republic's Ministry of the Construction Materials Industry does not operate smoothly and evenly. Plans for the production of many extremely important construction materials are not being fulfilled. Last year alone, production fell short by 55 million bricks, 51,000 tons of cement, 224,000 cubic meters of gravel and 55,000 cubic meters of lightweight aggregate concrete. There were large gaps in the supply of reinforced concrete for many of the projects scheduled for completion, and this frequently resulted in stoppages at the construction sites.

I must point out the fact that the board and the party organization of the Ministry of Construction Materials Industry have been unable to properly define the main directions for the branch's development, that they do not always thoroughly study the causes of lags in the operations of certain enterprises, do not work adequately with the cadre reserve and do little to disseminate advanced know-how, which is frequently to be found nearby. Is there nothing to be learned from the other collectives, from the Daugavpils Construction Materials and Parts Plant (V. Rodin, director; A. Khar'kov, secretary of the party organization)? It is out front not only within its own ministry, but also among all the enterprises of this industry in the nation. For the 38th time in a row the collective of this enterprise has been the winner in socialist competition for quarterly totals and has been awarded the Red Banner of the branch ministry and the trade union central committee. In that same republic department there are enterprises such as

the Kuprava Plant, the Liyepaya Construction Materials and Parts Combine, the Brotseny Cement and Slate Combine, the Riga Construction Materials Production Association and the Dolomit Production Association, which regularly fail to fulfill their plans.

The smooth functioning of the construction materials industry and the entire construction process depend upon transport, especially rail transport. Many breakdowns occur in its operations, however. Without relieving the directors of the Baltic Railway and its divisions located within the republic, as well as the Ministry of Motor Transport and Highways, of responsibility for this, we need to point out the fact that a great deal of the blame for these breakdowns also goes to enterprises of the Ministry of the Construction Materials Industry.

This is illustrated by the following figures. Rail car demurrage for the republic as a whole was down 5% last year from the previous year, while it increased by 8.5% in the construction materials industry. Losses of loading means were reduced by 15.3% for the Latvian SSR, while they increased by 19% at the Ministry's enterprises. Railcar demurrage exceeds the norm at 17 of the branch's 22 enterprises. The situation is especially unsatisfactory at the Riga Cement and Slate Plant, the linoleum and construction materials combines in Liyepay and the Dolomit Production Association.

At the Ministry's enterprises it is a matter of prime importance to accelerate the handling of the cars. The construction materials industry accounts for 10% of the railcar traffic in the republic, after all. This means that every tenth railcar is handled at plants and combines within that system.

The Ministry, its board members, enterprise leaders and party organizations must take effective and immediate steps to rectify the situation as rapidly as possible. A branch of industry in which thousands of people work and upon which the uninterrupted functioning of the entire construction line depends to such a significant degree, must perform better.

We should also point out the fact that systematic failure to apply capital investments or to totally accomplish planned volumes of construction and installation work in the construction and the modernization of branch enterprises has also had a negative effect on the performance of the Ministry of the Construction Materials Industry. This has occurred in a situation in which 43% of the fixed industrial production capital for the ministry is worn out, and for a number of brick and cement enterprises the figure is even greater--roughly 45-55%.

A large share of the blame also goes to organizations of the republic's Ministry of Construction, which failed to meet target dates for modernization of the Tuy Shop at the Loda Plant and Shop No. 3 of Reinforced Concrete Structural Elements Plant No. 1. The general contractor has still not been named for construction of the Purmali Shop at the Kalntsiyemskiy Construction Materials Plant, where additional capacities for the production of 22 million building bricks are supposed to go into operation in 1983. Capacities for a mobile crushing and grading unit capable of processing 200,000 cubic meters of gravel per year at the Kurzeme Quarry has not been placed into operation, although our greatest shortage is of precisely this material. And so, the Ministry of Construction is sawing off the limb on which it sits.

Or consider the following example. We are having serious difficulties with respect to providing the builders, especially the rural construction workers, with cement, primarily for the construction of facilities initiated and being constructed by the organizations themselves. A decision was adopted 6 months ago to modernize the kiln at the Brotseny Cement and Slate Combine, in order to create additional capacities for the production of this material to meet the needs of rural construction organizations. This work is proceeding extremely slowly, however. It is time to set about this project in a most vigorous manner. The combine's modernization should be considered a priority project. We must have it producing additional cement in 1984.

The Central Committee of the Latvian Communist Party recently outlined a number of emergency measures to improve the supply of materials and structural elements for the construction projects. Leading personnel of the Ministry of the Construction Materials Industry have been charged with personal responsibility for the accomplishment of these measures. The republic's Gosplan, Gossnab and Ministry of Construction, the Baltic Railway and other organizations absolutely must take part in their implementation. The party committees of those cities and rayons in which the enterprises of the construction materials industry are located will also have to work hard.

Serious criticism also has to be directed at a number of other ministries and departments, which also have a substantial effect upon the capital construction results. This applies first of all to the Ministry of Motor Transport and Highways, the Ministry of Communications, the State Committee for the Supply of Production Equipment for Agriculture and the Main Power Supply Administration. Completion of an airfield on the Malnava Sovkhoz-Tekhnikum in Ludzenskiy Rayon has been held up, and work has not been completed at the dairy complex on the Sidgunda Kolkhoz in Ryzhskiy Rayon and at a number of other production construction sites, for example, because of the unsatisfactory performance of subdivisions of the Latavtodormost Trust in laying the bituminous asphalt surfacing. That same trust, which is under the jurisdiction of the Ministry of Automotive Transport and Highways, has failed to complete its housing construction assignments.

Leaders of the Latspetsstsel'montazh Trust have on their conscience failure to complete a poultry farm on the Dzintarkarsts Kolkhoz in Ventspilsskiy Rayon, a calf tending farm on the Grundzale Sovkhoz in Valkskiy Rayon, ten single-dwelling houses on the Glubene Kolkhoz, and a number of other projects last year. It failed to accomplish a total of more than 1 million rubles worth of work, mainly agricultural projects, last year for organizations of the Ministry of Construction and the Latvkolkhozstroy Trust alone.

The clients have a great deal to do with the timely release of projects for use. The end results depend to a great extent upon what kind of preparations have been made for the construction and the extent to which it is provided documents, equipment and operating personnel. This is a well known fact, a copy-book truth, so to speak. Unfortunately, however, certain managers forget about it.

For example, inspections showed that as of 1 October equipment was lacking at a large number of extremely important projects scheduled for completion. How was it supposed to be possible to release capacities at the Liyepaya Meat Combine,

when the equipment for them was not received until the very end of December? As of 1 September 80% of the equipment had still not been delivered for a boiler room at yet another enterprise of the Ministry of the Meat and Dairy Industry, the Riga Meat Combine. As a result the project was not turned over for use when it was supposed to be.

Production capacities at the Riga Diesel Engineering Plant were placed into operation a quarter behind schedule because of delayed deliveries of equipment and large adjustments in the technical documentation. Start-up of a paint section at the Rigasel'mash Plant has been delayed a second year in a row for this same reason.

The builders have major complaints against the clients with respect to the delivery of electrical installation equipment, testing and measuring instruments and automation equipment, which has been the main cause of failure to meet target dates for the release of boiler rooms at the Ranka, Malpils and Birzgale Sovkhozes.

We cannot operate this way. We must fundamentally change the situation. It must be a law for the clients to provide the planning estimate documents by 1 July, to clear the construction sites and open the financial accounts before the work begins, to deliver all the equipment one quarter before the project is to be released, and to train the operating personnel by the beginning of start-up-and-adjustment work. Only if these things are done can we release projects for operation on time. The city and rayon party committees must take these things as the criteria for assessing the performance of the clients.

The organization of material and technical supply has a great deal to do with the degree of smoothness and precision in the work of the builders. We have unquestionably made progress in this area, but there are still many shortcomings. Suffice it to say that as much as 30% of the losses of work time result from idleness due to the unsatisfactory provision of the projects with materials, parts and equipment.

The Gossnab bases ordinarily do not have the complete list of materials needed for a project. This makes it impossible for the builders to work smoothly and regularly, and forces them to spend a great deal of time searching for this or that type or size of metal, let us say, or other materials. In most cases the needed materials are found. Unfortunately, they are usually located too late to make it possible to meet the target dates for completion of the projects. For this reason Gossnab should see to it that the funds are properly utilized, so as to supply them first of all to start-up projects in accordance with the established priority sequence and to resolve more promptly and efficiently matters pertaining to the redistribution of funds. In short, it needs to achieve a situation in which the builders receive everything they need at the right time, in strict accordance with the construction technology.

On the other hand, we should condemn attempts by certain construction organizations to exaggerate in their requests for materials, thereby creating even greater imbalance with respect to material and technical supply. This applies primarily to the Rigapromstroy, Rigastroy, Yurmalastroy and Yelgavstroy Trusts.

We also need to mention the fact that the construction organizations and enterprises of the construction materials industry are doing very little to achieve the efficient, economical use of raw and processed materials, fuel and energy. Everyone pays lip service to the importance of this matter--from the rank-and-file worker up to the minister. Unfortunately, however, this is frequently all that is done about it. How can we talk specifically about conservation, if no limitation charts are kept at the projects, making it impossible to keep records on the actual consumption of materials?

The planning institutes also deserve criticism with respect to the above failings. For example, they have been slow in adopting the practice of including in the planning documents lists of materials, structural elements and parts needed, and the amounts. The planning documents are frequently of extremely poor quality, and this is one of the reasons why the construction projects do not receive the planning documents in good time.

We have still not resolved a number of other problems pertaining to the achievement and the preservation of the architectural uniqueness of the cities and settlements. These problems are not just of social and economic importance, but also of ideological and indoctrinational significance. The priority task presently facing the republic's architects is that of making the architecture artistically more expressive and working out new methods for achieving creativity in the situation of industrialization and standardization in large-scale construction. While they have achieved a certain amount of success in the architecture of commemorative edifices, the same cannot be said about mass construction.

There is cause for serious concern in the fact that some management leaders and party organizations have relaxed their attention to the growth of labor productivity at construction sites and enterprises of the construction materials industry, that they are doing little to introduce new equipment and new technologies, and that they sometimes reconcile themselves to important deficiencies in the organization of production. This is borne out, for example, by the fact that in 1982 the republic's Ministry of Construction did not complete six assignments under the state plan for the development of science and technology, while the Latvskolkhozstroy Trust failed to complete its single assignment on time. Many of the measures outlined for enhancing labor productivity in construction are written down, and that is all, because they are not backed up with the necessary organizational work.

The brigade contract system, which is known to all and has been used with excellent results, is not being disseminated with enough vigor. Labor productivity is approximately 10-12% greater in the collectives operating with this system than in the others. The collective of the Mostostroy-5 Trust, as an example, has had great success with this system. Construction organizations in various of the nation's cities send agents to study its experience. And there is absolutely no justification for the fact that this system of production organization is not being extensively adopted in the republic's Ministry of Construction and the Latvskolkhozstroy Trust. In some places the work has even deteriorated in this area. The number of economically accountable brigades in the Yelgavstroy Trust has been cut in half, for example. The specific portion of jobs performed by economically accountable brigades has been allowed to drop in the Aluksne, Yelgava and Limbazi Interkolkhoz Construction Organizations.

The terms of 109 agreements with economically accountable brigades--that is, every 7th agreement--were violated in construction organizations or the Ministry of Construction in 1981, because the necessary organizational and technical preparations were not made for converting the brigades to economic accountability, the selection of the projects was handled as a formality, engineering preparations were not satisfactory and materials, structural elements and parts were not delivered smoothly and regularly. A total of 52 out of 281 agreements were broken in the Latvskolkhozstroy Trust. The situation was no better last year.

The republic's Gosstroy and the Orgtekhstroy Trust are clearly not giving enough attention to the adoption of the brigade system at construction sites. The branch trade union committees are also keeping themselves on the sidelines. Little is being done to attract the brigade councils to this system. Poor use is made of the experience of veterans in the construction field.

An important reserve for enhancing labor productivity lies in the fundamental improvement of labor discipline and the organization of the construction process. We still have numerous failings in this area. Many of the construction workers come to work late and end their workday 30 to 40 minutes ahead of schedule. This is especially true of the rural construction organizations. Certain managers and party organization secretaries reconcile themselves to violations of labor discipline, however, and make no attempt to create a climate of intolerance with respect to loafers, truants and drunks. The workday is very rarely scrutinized, and no thorough study is made of the causes of lost worktime in the brigades, in the sectors and the administrations. These matters are extremely rarely discussed in the labor collectives--at regular production conferences and meetings of the party, trade union and Komsomol organizations.

Unjustifiable losses of worktime in the construction organizations are enormously detrimental.

Large losses are occurring in organizations of the Ministry of Construction. Losses of worktime amounted to an average of 3.8 days per worker just during the first half of last year in Construction Administration No. 61 of the Rigastroy Trust (G. Litsitis, administration chief), and 2.5 days in the Special Administration for the Construction of Roads and Engineer Works of the Latspetsstroy Trust (I. Mutseniyeks, chief). Almost 10,000 man-days were lost because of truancy in the Latvskolkhozstroy Trust during 11 months of 1982.

It is also alarming that in some places those in charge have become accustomed to violations of labor discipline, considering them to be minor matters, and do not combat them with determination. They forget that it is the so-called minor matters which build up into such great losses that it is then sometimes impossible to make them up. This is why it is extremely important for party, trade union and Komsomol organizations to take every step necessary to establish exemplary order in each construction subdivision and to create a climate of mutual demand-ingness, of intolerance for violators of discipline.

The initiative authored by the Muscovites, which calls for us to work to the slogan "Honor and Glory--in Labor!", has now spread throughout the nation. We know that a number of Riga's progressive enterprises and organizations have supported this initiative. Its extensive dissemination will make it possible to

improve the organization of labor, to reduce the number of violations of labor and production discipline and to enhance labor productivity and improve the work at each work station.

The Central Committee of the Latvian Communist Party approved the initiative of the republic's outstanding collectives, which supported the undertaking of the Muscovites. We see that movement becomes even more massive, that it becomes widespread in the collectives of construction organizations and enterprises of the construction materials industry.

The construction collectives, all of those who are involved in the work of this branch, face large and difficult tasks in the third year of the five-year period. During this period we must place into operation fixed capital totalling almost 1 billion rubles and apply capital investments totalling 1.251 billion rubles. It is planned to further concentrate capital investments at the most important projects. We have a great deal to do with respect to the technical updating and modernization of operating enterprises. State capital totalling 241 million rubles is allocated for the whole group of projects involved in the development of the republic's agriculture. Housing construction will continue to receive a great deal of attention. Total housing space of more than 1 million square meters, including 365,000 square meters in the rural areas, will be built from all of the sources of financing. We shall continue the development of the material base for public education, culture, public health and other branches.

This year's assignments are intensive ones, but they are realistic. In order to accomplish them we must exhibit greater efficiency and initiative and achieve fuller use of internal reserves and possibilities as specified in the socialist commitments for 1983. We must give special attention to the achievement of outstripping growth rates for the start-up of fixed capital with lower capital investments by making efficient use of labor, material and technical and financial resources, by reducing the number of projects under construction at one time and by improving the construction and installation work. This year we are to increase labor productivity by at least 3.2% by further improving the organization of construction, by providing the projects with all the necessary structural elements and materials at the right time, by enhancing labor and production discipline, by reducing unproductive losses of worktime and by improving the use of the construction equipment. We must also work persistently to improve the management system of the construction industry. We should increase the number of brigades converted to brigade economic accountability to 60% of the total.

We are faced with the task of resolutely improving the level of party supervision in capital construction. The daily schedules of the party committees must include such matters as assuring that capital investments are properly channeled, assuring that they are efficiently applied, accelerating the start-up of capacities and units, enhancing the level of construction industrialization, by creating stable collectives and taking advantage of internal reserves. The work of the numerous participants in the construction process--clients, contract and planning organizations and suppliers--must be coordinated in each city and each rayon.

Prime attention should be devoted to the selection and placement of leading cadres in the construction subdivisions and to their indoctrination in a spirit

of great responsibility for the fulfillment of state plans and assignments and for the achievement of good end results. We need to conduct a determined struggle against all violations of state and labor discipline and expand socialist competition with the slogan "For Good Work Quality at Each Work Station." We must make the working masses more active. "Today," Yu.V. Andropov, general secretary of the CPSU Central Committee, stated in his speech at the November plenum, "this is an extremely important task for the party committees, soviet, trade union and Komsomol organs.... It is now especially important and necessary for each worker to understand that plan fulfillment depends also upon his labor contribution, for everyone to understand that simple fact that the better we work, the better we live...."

COPYRIGHT: Izdatel'stvo TsK KP Latvii. "Kommunist Sovetskoy Latvii" 1983.

11499

CSO: 1821/106

CONSTRUCTION PLANNING AND ECONOMICS

REPUBLIC CONSTRUCTION SHORTFALLS DETAILED

Frunze SOVETSKAYA KIRGIZIYA in Russian 1 Apr 83 p 2

[Article by K. Alykulov, deputy chairman of the Kirghiz SSR Gosstroy: "Build Rapidly, Economically and Well—Do Not Ignore Reserves"]

[Text] Kirghizia is in a highly active seismic zone. For this reason poured-concrete housing construction is undergoing further development here, along with frame-and-panel construction. Steps have been taken in recent years to enhance the industrialization of civil housing construction and to build up plant capacities for frame-and-panel housing construction in Frunze, Osh and Belovodskiy.

The volume of panel-and-frame housing construction will now be increased to almost 50% from the 41% accounted for by this type of construction in the republic under the 10th Five Year Plan. The start-up of the frame-and-panel housing construction (KPD) plant in Przheval'sk will increase this to 60%. The portion of concrete housing construction will also increase. Construction of brick houses will continue to account for a significant portion.

The number of floors in apartment buildings is an important factor in urban development. The specific portion of high-rise apartment buildings will be around 20%. The figure will be somewhat higher in Frunze.

The republic's Gosstroy is improving standard plans, making the buildings more resistant to earthquakes, industrializing the construction process itself and improving the architectural layouts of the buildings. The "105" Standard Series has been improved, for example. Among other things, the number of different inside wall panels was reduced, especially the production of modular bathrooms and elevator shafts. The process of adjusting standard designs for rural housing is being completed.

In recent years the provision of the cities and villages with planning documents (layouts and blueprints for regional and specific planning, and general plans), has improved considerably. This is one of the necessary conditions for comprehensive urban development. The detailed plans for Frunze's rayons, for example, provide for the completion of the city's developing architectural complexes, the removal of dilapidated housing from the center and the performance of major restoration work on those buildings which can still give the people long years of service. Similar plans are being worked out for the central areas of Tokmak, Cholpon-Ata, Rybachiy, Osh, Przheval'sk and Talas.

There are still numerous deficiencies in the republic's housing, cultural and personal service construction, however. This is mentioned with good reason in the decree passed by the CPSU Central Committee "Steps to Assure the Fulfillment of Construction Plans for Housing, social and personal service facilities."

The plans and designs still do not always measure up to the increased demands made of them. The architecture is monotonous in areas of large-scale housing construction in cities and other centers of population. The planning and construction indicated in the general plans for municipal services (sewerage, heat and gas lines) is lagging. As a result, boiler rooms with small capacities and local sewerage systems are being built. This has a negative effect not only with respect to the overall integration of development and architectural makeup, but also with respect to environmental protection.

The builders frequently do a poor and incomplete job of developing the territories of housing projects. Even the construction, especially finishing operations, is producing many complaints. And this is not just a matter of dissatisfaction on the part of those moving into new housing, a dampening of the joy of moving into a new apartment. It also means thousands of rubles out of state and individual pockets, rubles spent to rectify all sorts of defects, to refinish apartments and perform premature repair work. It involves the prolonging of construction periods, reduced durability and strength for the buildings and in the final analysis, reduced effectiveness for capital investments.

The state commissions which accept newly constructed buildings for use should prevent these defects. Unfortunately, however, their sense of responsibility frequently forsakes them. Localistic and departmental interests sometimes get the upper hand over the clients as well. This lack of demandingness and superficial approach to the appraisal of construction projects results in numerous shortcomings which take a long time to correct. For example, the directors of the city housing administration, the scientific production association for land cultivation and the aircraft enterprise, and other clients in the republic's capital, have repeatedly demanded of the directors of the Frunze Housing Construction Combine that they correct deficiencies in apartment buildings released for occupancy. The contractor uses various excuses and making various promises, however, while waiting for the guarantee period established for the elimination of defects to elapse. After that, it will wash its hands of the matter, as they say. An especially large number of defects were found in the roofs, the panel joints and the linoleum floors, after the heating and water supply systems were installed.

Many of these problems are being successfully resolved under the comprehensive, flow-line system for the construction of housing, social and personal service facilities, based on continuous planning.

Despite the fact that the republic government has passed a number of decrees requiring that the ministries and departments adopt this progressive method, practically nothing is being done toward its adoption in Frunze, Tokmak and Przheval'sk. The single-client concept is still only a matter of talk and of dreams.

The start-to-finish brigade contract has worked well in the nation's progressive organizations. The efforts of those participating in the construction are focused

upon the achievement of the end result--release of the finished project for use. In our republic this valuable innovation has received support among Frunze and Osh housing construction workers. These are essentially nothing but timid trials, however. The mutual commitments between the builders and subcontracting organizations for the timely completion of the work stages are frequently not kept. We do not get the continuous chain of work which would link together the brigades producing parts for frame-and-panel housing, drivers and other associated workers.

Miscalculations with respect to the need for material and technical support and in the planning are one of the causes of the breakdown in the fulfillment of contractual commitments. It would not be correct to regard this as the root of the problems, however. The level of completeness of plant-produced parts for frame-and-panel housing is still extremely low. The construction of projects frequently begins before the vertical planning for the areas and the laying of municipal service lines has been performed. The annual output plans for the brigades are frequently not coordinated among all the participants in the construction, and proper, progressive recording of actual outlays for the projects has not been set up.

Poor labor discipline is a major failing of the construction workers. In the Frunze Housing Construction Combine, for example, an additional 20-apartment section could have been built by eliminating just the recorded losses of work time. Each day an average of 10 workers are absent without justification or have the administration's permission not to show up for work. Around 50,000 rubles worth of work was not carried out for these reasons in the Osh Housing Construction Combine.

I want to stress once again the fact that there are fewer violations of labor discipline where the supply of materials and construction parts has been precisely organized and where the people work at a consistent and smooth pace. The responsibility for labor organization at the sites and for the improvement of economic accountability in the brigades therefore lies not only with the engineers and technicians in the lower subdivisions, but also with the headquarters of the branches. It is there where basic improvement in administration, planning, organization of the construction process and engineer support for construction will have to be effected.

11499

CSO: 1821/116

AGRICULTURAL CONSTRUCTION

LAG IN RURAL CONSTRUCTION, WASTE OF MATERIALS REVEALED

Updating of Housing Construction System

Moscow STROITEL'NAYA GAZETA in Russian 30 Mar 83 p 3

[Article by M. Martynov, Stavropol Kray: "Sharp Turns"]

[Text] L. Koliyev, chief of the Shpakovskiy Rural Construction Combine, under the Stavropol Rural Construction Trust, went to see his colleague, V. Bozhenko, at the Kochubey Rural Construction Combine of the Stavropol Kray Kolkhoz Construction Trust to ask him for 9-meter ceiling panels.

"We are building a school in the village of Tatarka," the visitor explained, "and we have nothing with which to cover the ceilings."

The Kochubey workers produce these panels in sufficient quantities, and the matter was settled within 5 minutes. It was incredible that the trip had to be made at all, however. The Shpakovskiy Rural Construction Combine is supposed to turn out complete sets of components for buildings, to install them, perform the finishing operations and turn them over to the clients ready for use. When we expect to obtain materials from others, our own construction line is placed in jeopardy. One would have to ask where and when the Shpakovskiy people would have found these panels if they had not been available from the Kochubey Rural Construction Combine.

L. Koliyev agrees. "That is true," he says. "Right now we are building schools and kindergartens with a large diversity of plans. We are using bricks. We have a shortage of equipment for producing large prestressed panels for use in social, cultural, personal service and other types of buildings, however. We are now mastering the production of Series "17." They will be prefabricated and will be turned out in complete sets of everything necessary. Then you'll see, we won't have to go to our neighbors for help."

The Shpakovskiy Rural Construction Combine is the newest in Stavropol Kray. The reinforced concrete plant out of which it was created went into operation 4 years ago. Although the enterprise was supposed to become the core facility of the rural construction combine, taking its experience into account, we cannot yet boast about the results of the collective's performance. The plant has not yet begun operating at rated capacity, the plans are not being fulfilled, and there are numerous losses.

The combine's development has been held up by two things. In the first place, the plant was accepted for operation before it was actually completed. There is no shop for the finishing of the items produced, no warehouse for the finished product and most importantly, no rail access. All of the materials are hauled by motor vehicle from the railway station. The additional transferring of the freight costs money and does not assure that production receives a smooth and regular supply of materials.

In the second place, the plant began to be remodeled even before it has been completed. It has been designed for the production of sets of components for urban-type multi-storied buildings. Experience has taught us that these are little suited for the rural area, however. We converted production to the duplex buildings designed for the central communities of the farms, and this entailed replacing a fourth of the equipment. In addition, the conversion to production of the new type of housing has reduced the plant's capacity by more than a third. Consequently, the plant has to be expanded in order to master the production of the planned 42,000 square meters of housing.

These are the difficult tasks being accomplished by the collective at the Shpakovskiy Rural Construction Combine today. The situation is similar at the Kochubey Rural Construction Combine. Until recently it has built almost no housing, engaging mainly in the construction of livestock buildings, silos, storehouses, feed production shops and other enterprises. Now the Kochubey workers have been assigned the task of rapidly mastering production of sets of components for farm-type houses in order to build 400 apartments annually. Expansion of the plant was begun for this purpose.

It should be pointed out that in general, Stavropol's rural construction organizations, including the rural construction combine, dealt mainly with the construction of production facilities until just recently, while construction volumes for housing, cultural and personal service facilities were insignificant. This resulted in a disproportion.

In order to rectify the situation, the party kraykom approved a comprehensive program of social development for the rural area. It is planned to build almost 24,300 apartments, 48 schools with a combined capacity of 24,300 students, around 100 preschool establishments, 34 clubs and a number of other service facilities. This program is now being vigorously implemented. All of the kray's construction organizations, without exception, are taking part in the transformation of the rural area. Their total effort produced around 4,500 new apartments last year, and it is planned to complete more than 5,000 this year.

There are five rural construction combines in the Stavropol area (three in the kray kolkhoz construction trust and two in the Stavropol Rural Construction Trust), and they are being assigned a special role in the implementation of the plans outlined. They are to become the main unit in rural construction, effecting the comprehensive development of the villages. A number of problems have come up, however, as a result of the switch to the new course. And while the priority tasks, those involved in the modernization and retooling of the plants, are already being accomplished (the funds have been allocated for this), the rest of them, which are mainly organizational, are still just carried on the schedule.

Let us begin with the matter of territorial delineation. The inter-kolkhoz rural construction combines frequently build housing and other installations right beside those being build by organizations of the Ministry of Rural Construction, and vice versa. For example, the Kochubey Rural Construction Combine is building a feed production shop in the settlement of Shpakovskiy and a protein concentrate plant in Izobil'nyy. And the Shpakovskiy Rural Construction Combine is building projects in the neighborhood of the settlement of Kochubey. It is building housing in Turkmenskiy Rayon, 260 miles away, where there is a mechanized column of its own Stavropol Rural Construction Trust. I can cite as many of these examples as you like. Is it necessary to point out the fact that this scatters our efforts and it also increases construction costs, because of the large transportation outlays, and makes control and management extremely difficult?

"I have been suggesting for a long time," L. Koliyev says, "that they assign five or six rayons to our combine. We are not the only ones who would benefit from this. It would also benefit the client farms, which would be dealing with a single contractor."

All of the directors of the kray's rural construction organizations share this point of view. This is not a new issue. It has been brought up more than once at various levels, including Union ministries and departments. A solution is as remote now as it was 10 years ago, however. Everything hinges on the point pertaining to different ownership--state and cooperative. At the sites they are waiting for the status of the inter-kolkhoz construction organizations to be altered. I believe that we could get around such a drastic measure, however. There is a fairly simple solution to the problem. A specific amount of work would be planned for the kray or oblast inter-kolkhoz construction organization on the sovkhozes, and the same amount would be planned for organizations of the Ministry of Rural Construction on the kolkhozes, transferring the inter-kolkhoz projects in some rayons to the Ministry of Rural Construction and projects in other rayons to the inter-kolkhoz construction organizations. This would eliminate the need for inefficient transportation operations. The creation of single zonal construction organizations would make it easier to accomplish the planned and comprehensive development of communities. There is a great diversity in this matter at the present time, and the development is being carried out without any system, in an arbitrary manner, so to speak.

"Just look at what is going on," A. Gayeva, chief of the Stavropol Rural Construction Trust, says with indignation. "On most of the farms we are to build only one or two dwelling houses. This is out-and-out scattering of efforts and means"!

We must accept the truth. It is costing us a great deal of money to build in this manner. Furthermore, even the villages do not benefit from this. The "single-unit" construction makes it impossible to properly equip and develop the housing. After all, no one is going to build a boiler room, install a sewage system and water pipes for two houses. The builders recommend that we build an entire street or a block at once, with the various services and installations designed "for growth," so that new houses can be added as the need arises. The practice of planning according to the principle "something for everyone" is still stubbornly holding sway in the UKS [Administration of Capital Construction] of the kray agricultural administration, however. Apparently, this is done so as not to offend anyone.

We also need to improve the structure of the kray's rural construction combines. Many of them were put together actually in the pattern of the urban DSK [housing construction combines]. That is, there were specialized combines. Some of them constructed livestock buildings, while others erected housing. Experience soon demonstrated that this was not the best way to handle the matter, however. It makes no sense to create several organizations in one rayon and separate operations bases for them—for production construction, for housing, cultural and personal services.

Many of the rural construction combines today are organizations with diversified capabilities, measuring up to the task of comprehensive transformation of the villages. Experience has taught us, however, that their present structure is far from perfect. First of all, we need to precisely adjust legal interrelationships between the combine and associated organizations. I once saw the following. A 50-apartment building was being readied to be released for occupancy in the settlement of the Stavropol Scientific Research Institute of Agriculture. The finishing work was practically completed, but the work being performed by the sanitary engineers from PMK-900 of the Sevkavsovkhozmontazh [North Caucasus Trust for Installation Work on Sovkhozes] was in full swing. It was apparent that the painters would have to redo a large part of their work after the others had left.

"That is not the half of it," says V. Fruktofskiy, deputy chief of the Shpakovski Rural Construction Combine. "If the sanitary engineers had not held us up, we could have released this building for occupancy last year."

This is far from an isolated case. The same situation exists in the Kochubey Rural Construction Combine. Now a feed production shop is not released for use through their fault, now a residential building.... I heard many complaints about the performance of the truck drivers and machine specialists. This matter became especially acute after the combine began establishing the flow-line construction system, with facilities released ready for occupancy. It is easy to see why. With production organized with the flow-line system, all of the jobs must be performed in a strictly defined sequence and at the times specified.

How can we remove the barriers and make the interests of all the associated workers serve to accomplish the main task—release of the projects for use? The heads of the rural construction combines feel that we need to reduce the number of subcontractors by making the mechanization sections or administrations and the sanitary engineers and technical installation subdivisions a part of the rural construction combines.

Naturally, we need to thoroughly study the specific characteristics of each combine before deciding on these matters. The optimal structure we find will help to reveal the potentials of the rural construction combines more completely and consequently, to enhance the effectiveness and quality of rural construction as a whole.

Shortcomings in Rural Construction Aired

Moscow STROITEL'NAYA GAZETA in Russian 17 Apr 83 p 2

[Article by an observer: "Housing for the Rural Area"]

[Text] Only 10 or 12 years ago around 70% of the houses in the rural areas were built of stone, wood, adobe and other local building materials. This involved a great deal of labor and was retarding the overall development of the modern village. We set out on a course of technical reequipment and intensive build-up of capacities forming the production base for the rural contract organizations.

An adequate base has been created for totally prefabricated housing construction in recent years in subdivisions of the USSR Ministry of Rural Construction. It is designed to produce structural elements and parts for erecting a total of 3.5 million square meters annually. This includes 2.7 million square meters of parts for frame-and-panel and poured-concrete housing, plus enough to erect 800,000 square meters of building space for cultural, personal service and social facilities.

The base for rural housing construction is being rapidly developed in the Nonchernozem Zone of the RSFSR and in areas of Siberia and the Far East. Enterprises with a combined capacity of 1 million square meters of general housing are now operating in the Nonchernozem Zone, and enterprises with a combined capacity of 810,000 square meters are operating in areas of Siberia and the Far East.

The qualitatively new level at which rural construction is organized permitted organizations of the USSR Ministry of Rural Construction to increase the overall amount of totally prefabricated housing built last year 1.7-fold over the 1975 level, and buildings for cultural and personal service facilities, 2-fold.

The construction of wooden housing is becoming more and more widespread in the rural areas. Modern plants for the production of prefabricated wooden houses for the rural residents have been built in Penza, Kirov, Kostroma and Arkhangelsk Oblasts, Altay Kray, the Karelian ASSR, Lithuania, Estonia and other places.

Houses are being built of poured-concrete units in the Russian Federation, the Ukraine, Kazakhstan and some other republics. Recently, the structural elements for new housing and other facilities in the rural areas have been supplied not just by the rural housing construction organizations, but by urban housing construction combines as well.

This will undoubtedly contribute to the rapid accomplishment of one of the main tasks outlined in the nation's Food Program--the overall transformation of the rural area.

A great deal has unquestionably been accomplished, but the rates of construction of housing, cultural and personal facilities in the rural areas no longer meet today's considerably increased requirements. It is not just housing which is in short supply in the village. There is an acute shortage of clubs, cultural centers, personal service enterprises, school buildings and other elements making up the infrastructure. In order to overcome the lag, we must drastically accelerate the development of the system of enterprises in the rural construction industry and increase the utilization factor for plants already operating. There are enormous reserves in this area.

Fully prefabricated buildings do not account for more than 40% of the total in the overall housing construction program in organizations of the USSR Ministry of Rural construction, while accounting for only 20% in the construction of public and personal service buildings. Small-scale materials continue to account for the bulk of rural construction, although the existing capacities of housing construction combines under the USSR Ministry of Rural Construction are being used at only 60% of their capacity, while the figure is only 52% for the Russian Federation's Ministry of Rural Construction.

The fact that the utilization factor for production capacities at enterprises of the Uzbek, Tajik, Moldavian and Turkmen Union republic ministries of rural construction was lower last year than in 1981 is especially alarming.

An entire group of questions must be resolved in order to thoroughly correct the situation. This is within the competence of both the builders and the client's service. The technical retooling and the completion of the outfitting of operating plants constitute one of the priority tasks. Only 16 of 70 frame-and-panel housing construction enterprises are equipped with vertical lines for finishing the panels. And only 2 enterprises produce a completely finished product ready for shipment to the consumers, with no additional finishing operations required. Only 30% of the enterprises producing parts for totally prefabricated housing manufacture modular bathrooms. Around 300,000 square meters of outside wall-panels are produced requiring additional work.

This nullifies the benefit from the completely prefabricated construction system and requires enormous outlays of little-productive manual labor. The plans contained a complete list of measures to achieve the production of factory-finished materials for rural housing, however. The task is clear, then--we must eliminate the need for final finishing work and place into operation plants containing the entire production line.

In addition to deficiencies in the use of the capacities at production enterprises, the build-up of rates of totally prefabricated construction in the rural area is being held up because in many cases there are no long-range plans for the industrial production of these buildings, and existing plans do not always measure up to modern requirements.

Dozens of planning institutes under various ministries and departments are engaged in the development of standard plans for rural houses and public buildings. Their work is not always precisely coordinated. More than 160 series of standard plans have been worked up and are being used for the construction of housing, for example. They include 1,852 separate plans. A full 58% of these are plans for houses designed for the central farm communities, and 37% of them are for 2- and 5-story buildings and modular units. These plans are not used very extensively. Only 5-10% of the plans are used more than 100 times in a year, and around 5% of them are used 50 to 100 times. About 60% of the plans are not used at all. As a rule, these consist of obsolete plans and blueprints. These plans do not take into account modern demands for improved architectural layouts, the need for increased comfort, the conditions necessary for the rural residents to maintain personal plots, and so forth.

A study of the plans has shown that more than 100 obsolete plans should be removed from the list of those in use and that more than 300 of them need to be updated. This work cannot be put off. According to the Central Statistical Administration (TsSU), 64% of the housing being constructed in the village is of obsolete design. Naturally, this prevents the efficient utilization of capacities for industrialized housing construction and reduces the effectiveness of capital investments in the industry.

Inadequate use is made of these plans also because there are too many different types and sizes within a single series, and the degree of standardization is too low. Because of this most of the enterprises engaged in industrialized, rural housing construction ordinarily turn out only one or two different models of houses. In effect, the enterprises make practically no use of around 30% of the available stock molds and equipment.

If we switch to the production of parts for a large number of different designs, we will have to supplement the stock of molds. We do not have enough metal for this. The planners make too little use of inter-series standardization of structural elements as a reserve for increasing the effectiveness of rural housing construction. This would also make it possible to diversify the architectural composition in the development of the villages and would increase the utilization factor for housing construction capacities in operation.

A number of planning organizations are working to increase the level of industrialization in housing construction and to standardize the structural elements. Pile foundations, unilinear outside wall panels, acoustical ceiling tiles, poured-concrete bathrooms and variations on the industrial roofs, for example, have been used in the Reinforced Concrete Design Bureau of the RSFSR Gosstroy. The production of these is now being mastered by production bases of the SSK [rural construction combine] and the EDSK [expansion unknown] of the Russian Federation's Ministry of Rural Construction in 16 republic krais and oblasts.

Similar work is being performed by designers in the Ukraine, Belorussia and certain other places. The development of progressive plans and designs does not cover all of the areas by far, however, and it is being conducted on an extremely limited scale.

The problem of improving standard designs for housing and public buildings, and consequently, improving the utilization of capacities for industrialized housing construction, requires the precise coordination of scientific research and design work, adoption of a united approach to the accomplishment of these tasks by all the institutes of Gosgrazhdanstroy [State Committee for Civil Construction], the state committees for construction of the Union republics, ministries and departments. In order to achieve this we must have a unified coordination center. This need is a direct outgrowth from the tasks defined in the decree passed by the CPSU Central Committee "On Steps to Assure the Fulfillment of Plans for the Construction of Housing, Social and Personal Service Facilities"

BUILDING MATERIALS

MATERIALS CONSERVATION MEASURES DESCRIBED

Moscow VESTNIK STATISTIKI in Russian No 3, Mar 83 pp 22-26

[Article by A. Belyayev, chief of the Capital Construction Statistics Administration of the USSR TsSU [Central Statistical Administration]: "For Effective Economy Measures"]

[Text] Capital construction is one of the major consumers of material resources. Expended on construction and installation work in the national economy are about 20 percent of all rolled ferrous metals, more than 80 percent of the cement, about 50 percent of the lumber, etc. Along with this, construction is also the most material-consuming sector of the national economy. Thus, within the structure of the production costs (operations) material expenditures comprise approximately 61 percent. Calculations have shown that reducing the consumption of material resources in capital construction by merely one percent would provide an annual savings of approximately 500 million rubles.

During the current five-year plan in construction provisions have been made to ensure savings on rolled ferrous metals and lumber of 7--9 percent, cement by 5--7 percent, glass by 7--8 percent, soft roofing materials by 3--4 percent, and slate by 2--3 percent.

Economizing on material resources in capital construction is a comprehensive problem, and it should be solved by following three basic lines.

FIRST--by means of improving the quality of the planning solutions in building new and modernizing existing enterprises and facilities, utilizing the most progressive technical and economic indicators, in particular, those such as high productivity of equipment and units, labor productivity, reducing the specific expenditures of fuel and energy, raw materials and other materials, and reducing the specific capital investments per unit of capacity being put into operation. Large savings are provided by rational architectural-planning solutions, correct calculations of the strength of structural components, the lack of all manner of surplus amounts, the decrease in the structure of capital investments of the proportion of construction and installation operations and an increase of the proportion of equipment.

As examples we can cite the Tol'yatli Motor-Vehicle Plant, the KamAZ /Kama Motor-Vehicle Plant/, the Krasnoyarsk Heavy-Excavator Plant, and a number of others, in the planning and construction of which the specific expenditures of energy and materials, as well as the specific capital investments per unit of capacity put into operation are significantly less than at analogous plants.

A big effect is provided by the use of more powerful units. Thus, the units being introduced into operation at chemical plants for the production of ammonia with a productivity of 400,000 tons per year allow us to reduce the specific expenditures of electric power by a factor of several times, as compared with the existing units.

SECOND--improving the engineering processes of construction and installation operations, the forms and methods of organizing construction. Particular attention should be paid to raising the level of the industrialization of construction, the degree of prefabrication and the use of structural components and parts many of which are manufactured at plants, in particular, the bloc-type installation of roofs, conveyor assembly, the non-channel laying of pipelines, etc.; the broad-based introduction of the brigade-type contract, the comprehensive system of construction quality, which allows defects to be reduced by a factor of 1.5--2, as well as the time spent on re-doing work which was poorly executed.

THIRD--expanding the volumes of production and introducing in construction economical types of structural elements and materials, as well as their substitutes, in particular, metal structural components made of increased-strength steel, economical shapes of rolled metal, roofing materials and walls made of grooved, thin sheet-metal with effective heating of thin-wall, plastic, and other kinds of pipes, economical types of piles, structural components made of concrete based on lightweight fillers and high-strength concrete, wood-chip and wood-fiber panels, plywood structural components, etc. Considerable savings of materials and reduction in the weight of structural elements are provided by the use of polymer materials and products, especially for roofs and heat insulation.

In the preparation and comprehensive analysis of information regarding savings on materials it is necessary to make more extensive use of data from accounts on capital construction, characterizing the effectiveness of implementing measures for the most rational utilization of material resources, in particular, the indicators of a change in the structure of capital investments and a reduction in the proportion of construction and installation operations by means of modernizing and re-tooling existing enterprises, lowering the estimated cost of construction and specific capital investments, increasing the capacity and the productivity of equipment and units being put into operation, as well as a number of other indicators on which the material consumption of construction output depends. During this year it is planned to conduct the first selective investigation of the technical-economic level of enterprises under construction in order then to make the transition to obtaining periodic information on this matter, as is being done at the present time, for example, in the industrial statistics for operating enterprises.

At the same time it is necessary to make fuller use of accountability with regard to the statistics of technical progress, in particular, Form No 2-nt, which reflect the data on the execution of new technical measures providing a reduction in the weight of structural components and a decrease in the expenditure of materials in construction.

For the current five-year plan increased tasks have been assigned for the production of effective and economical building materials and structural components. The accounting data show that these tasks are not always being carried out. It would be feasible to provide regular information on the fulfillment of the production plan and the degree of utilization of existing production capacities for the output of these materials and items at enterprises, and also on the basis of the data of statistical reports on material-technical supply, using Form No 2-si, to determine the degree of their application in construction. On this form it is necessary to make more precise the nomenclature of materials, proceeding from the present-day demands of technical progress.

Great importance is accorded to the utilization of secondary resources. In connection with this, we must improve the system of reports and accounts, economic analysis, and monitoring controls over the correct and effective expenditure of material resources, provide strict accounts of all types of waste products and losses. Specific assignments have been established by the five-year and one-year plans with regard to capital construction. In particular, in ferrous metallurgy--the putting into operation of units for granulating blast-furnace slags and waste products from boilers; in the petrochemical and chemical industry--units for reprocessing worn-out tires, the waste products from the production of mineral fertilizers (phosphogypsum), as well as polyethylene film which has been processed in agriculture; in the pulp-and-paper industry--construction of cardboard factories for reprocessing paper and cardboard waste products, etc. There are likewise enormous reserves for using waste materials on construction projects and in the enterprises of the construction industry.

There are substantial reserves for economizing on materials in housing construction. The investigations being carried out by the USSR Central Statistical Administration on the costs and quality of housing construction have revealed the presence of excess amounts and violations: the use of expensive and material-consuming individual plans for the construction of apartment houses, multi-storied buildings, and so forth.

Far from all republics, krays, and oblasts have established a rational structure for building up cities, nor have they approved a tolerable average cost of one square meter of total area of apartment houses. In analyzing the data characterizing the problems of the cost and quality of building housing and communal-service and socio-cultural types of facilities, the organs of state statistics must accord the necessary attention to these questions.

Relatively large losses of material resources have been caused by a slow-down in the cycle of their turnover rate in the sectors of material production and especially in capital construction, where this is manifested in the form

of above-norm amounts of unfinished construction, which for the national economy as a whole, as well as for a number of sectors, has now assumed significant dimensions. When we know the above-norm amount of unfinished construction with regard to the scope of construction and installation operations (based on the annual reports by the builders) and the proportion of material outlays within the total production cost of construction and installation operations (from the reports of construction operations on Form No 2-s), it is not difficult to determine the dimensions of the frozen material resources.

Direct losses of material resources in capital construction are caused by the writing off in considerable amounts of capital investments in connection with the terminal cessation of construction projects begun earlier. These data are also reflected in the annual accounts of builders, and it is feasible to use them in preparing the appropriate information.

The organs of state statistics, in their check-ups and selective investigations of the work of production centers of construction organizations, must pay particular attention to the delivery of materials and structural components in the form of complete technical sets. The introduction of a system of production-technical complete sets will make it possible to provide construction projects with the on-time delivery of complete sets of materials and structural components; it will also avoid excessive amounts of their supplies and will reduce spoilage and losses. In connection with this, it would be feasible, based on an analysis of existing statistical data, to strengthen the monitoring controls over the course of material-technical supplies for construction.

Within the comprehensive analysis of the expenditure of material resources in construction it is necessary to utilize the accounting data on the production cost of construction and installation operations by using Form No 2-s. These accounts have been supplemented by a number of new indicators characterizing in cost terms the results of the expenditure of material resources by individual organizations as well as by ministries and departments. These accounts are worked out by the organs of state statistics in a territorial cross-section as well.

Beginning in 1983, the body of tasks with regard to production cost (operations) will include a new indicator--the limit (boundary level) of material expenditures in kopeks per ruble of construction and installation operations. On the basis of this indicator and the volume of operations being carried out, the plan and actual production cost is to be determined under the article entitled "material expenditures." Form No 2-s has also introduced direct indicators of the amount of savings or the excess over the limit as the difference between the plan and the actual production cost. Moreover, this form has provided for the first time the distribution of all outlays for the production of construction and installation operations by individual elements, including material outlays which reflect the complete expenditure of material resources, also including material outlays contained in other articles, in particular, outlays for the operation of machinery and mechanisms, in applied expenditures, etc.

In analyzing the data on economizing and over-expenditure beyond the established limit of material outlays, it is feasible to utilize groupings of construction organizations and trusts at the level of performing the limit, isolating out the organizations which are economical and the organizations which have allowed over-expenditures, in combination with the indicators for the fulfillment of plans of construction and installation operations. Since these data reflect only the results in a monetary estimate, they must be supplemented by data on the results of the expenditure of individual types of building materials, fuel, and energy in comparison with the established norms. This will substantially enrich the information about the results of the expenditure of material resources.

In determining the losses of material resources in the production of construction operations, we must isolate out the indicators showing excesses of the norms for expenditure of materials which are caused by deviations from the approved plans, the use of larger grade sizes and those caused by the use of substitute materials, by writing off materials for projects completed earlier and for work not taken into account in the plan or the estimate, by the elimination of defective items and the re-doing of poorly executed work, by the under-utilization of waste products as compared with the plan assignments, as well as by direct losses of materials in connection with short deliveries, spoilage, pilferage, and natural shrinkage (in excess of the established norms). For a more complete accounting of the losses in construction Section IV of Form No 2-s has included an indicator entitled "From Total Losses and Non-Production Outlays--Non-Production Losses and Outlays of Material Resources." At the present time Methodological Instructions are being prepared on a system of indicators characterizing all types of losses of material resources in construction. During the Third Quarter of 1983 provision has been made to carry out a broad-based investigation at construction organizations as well as at enterprises of the construction industry in order to obtain more complete data on the dimensions of the losses of materials, fuel, and energy in construction and at the same time to check out the correctness of the system of indicators which has been developed. This investigation will also help us to determine both the causes of over-expenditure and the losses of material resources.

When we know all the losses of material resources and the specific proportion of material outlays in the production cost (of operations), it will also be possible to calculate the volume of construction and installation operations not carried out in connection with the over-expenditure of material resources.

In construction two systems of norms for the expenditure of materials are operative. CONSOLIDATED NORMS--the expenditure per million rubles of construction and installation operations, which are determined by the planning organs and used in allocating materials to ministries and departments. These norms are averaged out to an extreme degree, and therefore comparing them with the actual expenditures can be extremely tentative, since the expenditure of materials depends to a certain degree on the changing structure of the operations. PRODUCTION NORMS for the expenditure of materials for

individual types of construction and installation operations and structural elements as measured in physical terms ought to become the criterion of the effectiveness of using material resources in construction.

The decisions of the party and the government have posed the task of constantly improving the norms for the expenditure of materials, of ensuring their progressive nature and mobilizing importance. The results of expending material resources in comparison with the established norms, as is known, are reflected in Form No 20-sn and utilized by management and planning organs for evaluating the performance of assignments with regard to economizing on material resources as well as for determining the scope of the savings, which can be channeled into paying out bonuses to the workers of enterprises and organizations. According to the data of the accounts of ministries and departments (these accounts are not worked out in the organs of state statistics), the dimensions of the savings achieved on the most important types of building materials during 1981 amounted to 1--3 percent of the total amount of expenditures; this corresponds approximately to the tasks assigned with regard to savings for the year. But if these data are compared with the information contained in the account on Form No 18-sn, which takes into consideration the fulfillment of socialist pledges with regard to savings on material resources, then it is obvious that for many types of materials the tasks on savings have not been substantially carried out. Thus, for example, in 1981 the plan for savings on rolled ferrous metals and cement was fulfilled by 83 percent, for lumber--by 80 percent, for electric power--by 90 percent, and for gasoline to be used in motor vehicles--by only 63 percent.

Along with this, the over-expenditure of most types of materials by many ministries in Account Form No 20-sn is not fully reflected, while for individual types of materials this indicator is completely lacking. At the same time, check-ups being conducted by the organs of USSR Gosstsnab and USSR Stroybank testify to the significant dimensions of over-expenditure and losses of materials in construction. In connection with the great importance of the data reported on Form No 20-sn, it is necessary to systematically conduct a check-up on the reliability of its data and to analyze them. We must pay attention, above all, to the absence in this account of normative indicators or the reflection of obsolete norms in the account. The ministries and departments have been entrusted in 1983 with the task of working out advanced, progressive indicators for the norms of expenditure of materials and of bringing them to the attention of the sub-departmental enterprises and organizations.

Check-ups on the correctness of compiling accounting documents and, above all, the material accounts of construction superintendents on Form No M-29 bear witness to the presence of distortions in the data regarding the normative expenditure of materials, which in the accounts is equal to the actual expenditure. These data ought to be based on the engineering specifications, rather than reflecting the actual fulfilled volume, including operations on re-doing items connected with deviations from the plans and estimates, the elimination of defective goods, etc. Losses and shortcomings of materials are sometimes written off as production cost (of operations). Instead of

production norms, they show estimate norms, which do not take into account the assignments with regard to savings on material resources. At the present time the Form No M-29 for material accounting by the construction superintendent is being revised and supplemented by a number of indicators, providing an opportunity to upgrade the quality of this document and its reliability.

It is completely obvious that work on ensuring the reliability of the data on the primary account and the statistical accountability on the expenditure of material resources, along with setting norms, comprise the principal task of the organs of state statistics, directed at the economical expenditure of material resources in the sectors of the national economy.

COPYRIGHT: Izdatel'stvo "Finansy i statistika", 1983

2384

CSO: 1821/118

END

END OF

FICHE

DATE FILMED

August 3, 1983